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CLASSIFICATION OF OCCUPATIONS IN THE
CENSUS.

TRANSLATION OF REPORT MADE BY M. BERTILLON AT THE VIENNA SESSION OF THE
INTERNATIONAL INSTITUTE OF STATISTICS; PUBLISHED IN *Bulletin de L'Insti-
tut International de Statistique*, VOL. 6, PART I, P. 263.

M. Vannacque and myself submit to your approval three classifications of occupations, the second of which is derived by sub-division from the first, and the third from the second. The chief aim in drawing up this plan has been to secure uniformity in the statistics of occupations.

At present the necessity of uniformity in statistics of labor is strongly insisted upon. The study of the organization of labor is assuming a steadily advancing position in government inquiry. As progress is made in this study the stronger becomes the conviction that in order to attain practical results a certain international agreement is indispensable. How can this agreement be hoped for if the elements of statistics, which form the basis of it, are not comparable. The work which we are undertaking, therefore, does not aim simply at satisfying the curiosity of the learned; it has a more important bearing, and may help to solve most serious problems, which may be presented in a few years to all governments.

If it were proposed to adopt a single classification, some countries would not coöperate, thinking it too complex, while others would consider it too short. This difficulty is avoided by proposing three classifications, which blend together in some measure, since each is developed by the sub-division of the preceding.

The first of the classifications is very condensed, numbering only 65 headings. The second reproduces certain of these general headings, and develops from them a great many others, numbering 197 headings. Finally, the third develops these still further, and contains 456 categories.

But there is no reason for limiting our choice to these three classifications. The uniformity of statistics of occupations

will in no way be altered; if, for example, a country should adopt the second classification, and substitute for some of its headings the corresponding ones of the first or third classification. It is important, however, that the general frame work should always be that of the first classification, the most condensed of the three, and that the occupations should be arranged according to the third classification, the most detailed of the three.

GENERAL PRINCIPLES OF THE PROPOSED CLASSIFICATION.

The general principles of the proposed classification have already been set forth in a preliminary article presented before the International Statistical Institute, at its session at Paris in 1889. We will summarize these briefly.

If the different classifications actually in use are compared, it is evident that they agree well enough in the general divisions to be adopted. They can be made almost uniform by accepting the following grand divisions of occupations:—

- A. Production of raw materials :
 - I. Agriculture.
 - II. Extraction of minerals.
- B. Transformation and employment of raw materials :
 - III. Manufacture.
 - IV. Transportation.
 - V. Trade.
- C. Public administration and the liberal arts :
 - VI. Public force.
 - VII. Public administration.
 - VIII. Liberal professions.
 - IX. Persons living on their income.
- D. Miscellaneous.
 - X. Miscellaneous and non-classified.

These divisions are so logical that there is scarcely need to justify them.

- A. Man procures raw materials necessary for every occu-

pation, either by working upon the soil (I. Agriculture), or by working under the soil (II. Extraction of minerals).

B. These raw materials are then changed by the arts and manufactures (III. Manufactures), carried to the place where they are needed (IV. Transportation), and distributed among consumers by trade (V. Trade).

C. To keep good order and guard the welfare of the preceding occupations, every country has an army and a police force (VI), and a public administration (VII). The liberal professions (VIII) and persons living upon their income (IX) naturally follow the occupations just reviewed.

D. Finally, it is expedient to establish a division for persons without occupations and the non-classified (X).

The occupations in each of the above ten classes are then sub-divided as follows :—

I. Agriculture.—The following divisions are borrowed from the Italian classification :—

1. Cultivation of arable land.
2. Gardening and market gardening (nursery-men, mushroom raisers).
3. Forestry (foresters, wood-cutters, charcoal-burners).
4. Stock-raising (horses, cattle, sheep, goats, swine, dogs, poultry).¹
5. Raising of small animals (ornamental birds, fish, oysters, bees, silk-worms).²
6. Fresh-water fish and game. (The fresh-water fish are placed under this heading as it is often difficult in practice to distinguish coast fishermen from other sailors, and they are therefore united under the same head.)

II. Extraction of minerals.—This class is nearly always divided into three categories.

1. Mines. First, mines of combustible minerals, then of metals. Both lists may be modified according to the country.
2. Quarries. First, of stone and other hard rocks, then of sand and soft rock. Both lists may be modified according to the country.

¹ The animals are arranged according to size. The three kinds producing milk are placed together. ² According to size.

3. Salt mines and marshes. A special division is provided for other substances taken from water, such as borax, etc.

III. Manufactures and allied industries.—In most classifications industries are designated either by the substance utilized, or by the need they satisfy. Thus, on the one hand, there are industries in metals, skins and hides, wood, etc. ; and, on the other, those of dress, food, furniture, buildings, etc.

In all classifications of merchandise, and notably in those of the custom house, two categories are distinguishable :—

1. Articles necessary to manufacture, as crude materials, or those partly worked up, whose final use is not exactly determined, as iron in pigs or bars, thread, etc.
2. Manufactured articles whose use is determined, as a piece of furniture, a garment, etc.

In general, articles necessary for manufacture being either crude materials, or partly worked up, consist of a homogeneous substance, such as sawed wood, tanned skins, etc. It is natural, therefore, to arrange the industries related to them under headings of the names of the substances with which they are concerned, as, *e. g.*, industries of metals, leather, wood, etc.

Manufactured articles, on the contrary, usually consist of various substances. An arm-chair is made of wood, hair, wool, metal springs, and leather or tapestry. It is impossible, therefore, to classify makers of arm-chairs under industries of wood, iron, or woven fabrics, etc. But as the use of manufactured articles is well determined, they are naturally classed according to their use, and distinguished as industries of dress, furniture, building, etc.

From the preceding considerations, industries may be divided according to the following generally received categories :¹—

¹ Although the order of arranging these headings is only of secondary interest, we wish to justify it in a few words. It is the order followed above for the production of raw materials. First, we arrange the industries for which the raw material is furnished by agriculture (textile substances, woods, skins) ; then those for which the material is furnished by mines and quarries (metals, clay, and sand) ; then the chemical products which

Industries Classified According to Material Used.

1. Textiles.
2. Skins, hides, hard matter from the animal kingdom (bone, horn, pearl shell).
3. Wood.
4. Metallurgy.
5. Ceramics.
6. Chemical products, properly speaking, and analogous products.

Industries Classified According to the Needs to which they are Applied.

7. Food stuffs.
8. Clothing and the toilet.
9. Furnishings.
10. Building.
11. Construction of apparatus for transportation.
12. Production and transmission of physical forces (heat, light, electricity, motive power, etc.).
13. Industries of luxury ; industries relating to the sciences, letters, and arts.
14. Industries concerned with refuse matter.

Non-Classified Industries.

15. Other industries.
16. Industries insufficiently determined.

TEXTILES.

All classifications agree upon the definition of this heading. It is applied to the manufacture and coloring of woven goods, and not their utilization for garments and furniture. Thus, tailors, sempsters, etc., ought not to be classed in this division.

borrow from the three kingdoms the necessary raw materials. Finally, the industries classified according to the need they fulfill are arranged in the following order: Food, the most important of our needs, should still more be put first, since agriculture furnishes the raw materials for it. Dress gets its raw materials from industries of woven goods, and of skins, which are enumerated among the first. Furniture and building (which concern us not much less than dress) get their raw materials from wood, metals, and ceramics. The apparatus of transportation and production of physical forces are less indispensable to man than the preceding industries. Finally come the industries of luxury and those pertaining to the sciences, letters, and arts. Naturally, industries of refuse matter are named last.

In the second classification are included all substances susceptible of being woven (cotton, flax and hemp, etc.). Then in the further details of the third classification are distinguished (1) the preparation of the substance employed, as, for example, the retting of flax and hemp; (2) spinning; (3) weaving under the principal varieties.

The working up of straw is regarded as a textile industry, but the manufacture of straw hats and baskets, etc., can hardly be considered as textile. A special heading is reserved for mixed fabrics, whose importance is constantly increasing. A special heading is provided for laces, tulles, etc., because these fabrics can be manufactured with the most varied materials. Industries of hair and horse-hair are better classed with textiles than with skins and leathers. Felt is also a sort of tissue. The tissues of horse-hair, properly speaking, constitute an important industry. The feather industry is also classed here, since, belonging at the same time to the industry of clothing, and that of furniture, it cannot be classed with either of these. The feather industry is better placed with textiles, and the weaving of feathers is becoming quite extensive.

Finally, a special heading is reserved for the dyeing and printing of fabrics. Naturally, the dyers and cleaners (*Teinturiers-dégraisseurs*) do not find their place here; they are classed under the industries of dress and the toilet.

SKINS, HIDES, AND HARD MATTER FROM THE ANIMAL KINGDOM. (BONES, HORNS, PEARL SHELL, ETC.)

This rubric includes the preparation of leather (either by tanning, alum, or other process), and the principal treatment to which it is subjected (stamping, moulding, gilding, silver-plating, or leather). The industry of furriers, gut-workers (gold-beaters' skin, catgut), and, finally, that of hard matters from the animal kingdom (bone, ivory, shell, whale-bone, pearl-shell) are naturally placed in this division. On the contrary, cord-wainers, who are inseparable from shoemakers,

galosh-makers, and other makers of foot-wear (slippers, etc.), and take part, like them, in the industry of dress, are not included at this point. Glove and breeches-makers are always classed with the industries of dress. Saddlers and harness-makers use other materials than leather (now horses' collars are made of iron solely), and cannot be classed here. These will be found under "Means of transportation."

WOOD.

The first occupation indicated in this group is that of sawing, since this prepares the wood for the other industries. Then we enumerate occupations using wood exclusively. A separate special division is reserved for wood-turners, for, as workmen of this occupation use the lathe, there is a tendency in every language to designate them by the very vague word "turner," without specifying whether they turn on wood, metal, or other substance. Therefore, even at the risk that this list may be incomplete, it is better to put them apart. In this way, at least, one can always get at the total number of turners.

To industries of wood are added those of wicker, cork, and other woody materials (excluding straw, rushes, and other substances classed with textile). The "*Modeleurs en bois pour machine*" belong evidently to the metallurgical industry. Carpenters, joiners, and floor-layers are classed with building industries in all classifications, and notably in the English. Shoemakers plainly form a part of the industry of clothing, and could hardly be separated from galosh-makers, who use leather quite as much as wood. Cane-makers cannot be separated from makers of parasols and umbrellas, who use cloth, whale-bone, and metal as well as wood. These are placed under the heading "Dress." Wood-carvers and inlayers are only specialists in cabinet-making, and with them should form a part of the industry of furnishings. Finally, wheelrights, inseparable from carriage-makers, and builders of wooden boats, inseparable from other boat-builders, come under the industry of "Means of transportation."

METALLURGY.

Under this head are arranged : —

- (a) Forging and rolling of metals, the list varying according to the country.
- (b) Forging of metal articles.

In enumerating industries concerned with making metal articles we follow this order: (1) Industries which work up principally or exclusively iron, and these are subdivided into two groups, according to whether they make machines and large implements or small articles; (2) Industries working principally or exclusively on copper, lead, tin, or other metals; (3) Metallurgical industries characterized less by the substance they work up than by the instruments they use, as *étameurs ferblantiers*, the turners on metal, the wire-drawers, followed by the industries using metallic wire exclusively, and, lastly, stampers.

Lock-smiths and plumbers are not classed under metallurgical industries, for it is impossible to separate them from building industries. It is thought best to class the makers of brass and iron beds under the heading "Furniture." Gold-smiths and gold-beaters are inseparable from jewellers, lapidaries, workers in real and imitation jewels; and all these industries have been classed under industries of luxury. In the same way it is difficult in practice to distinguish watch and clock makers from jewellers.

CERAMICS.

Ceramics comprise industries of glass, porcelain and crockery, and common clay (bricks, tiles, etc.).

CHEMICAL PRODUCTS, PROPERLY SPEAKING, AND ANALOGOUS PRODUCTS.

The classification of the very numerous occupations comprised in this group is very difficult. These are distinguished according to the nature of the commodity treated, thus: —

1. Manufacture of pure chemical products.
2. Manufacture of dyes and inks.
3. Industries concerned with fatty and analogous bodies, as fats and other soft substances taken from the bodies of animals (flesh and hides excepted), vegetable and mineral oils.
4. Manufacture of bodies derived from fats (candles, soap, etc.).
5. Industries relating to various impermeable commodities, arranged under the following headings: Varnishes and wax, India rubber, bitumen, tar, resin, etc.
6. Paper industries¹, which naturally take their place² in the group of chemical and analogous products, and which cannot be classified elsewhere.

It is impossible to put paper with leather, as is done in the German nomenclature, so excellent in so many other respects, for there is no relation between these industries. The production of the raw materials, the kind of work of which they are the object, their final use, and, finally, the degree of healthfulness in the respective industries, tend to separate them.

Sugar refineries, distilleries, manufactories of vinegar, mustard, etc., are classed under the heading "Foods."

FOODS.

These are divided into cereals, different products of the animal kingdom, other products of the vegetable kingdom, and, lastly, drinks.

Restaurants are inseparable from wine shops, cafés, and lodging houses, and should consequently be classed under trade.

The servants attached to restaurants naturally follow the same placing; domestic cooks, male and female (difficult to distinguish from the preceding), form a separate list in the group of domestics.

¹ Excepting book-binders, who are found among the industries relating to science and letters.

² They were so classified by the *Chambre des Prudhommes de Paris*.

Grocers are considered as merchants, and not as industrials.

In this list are also classed manufacturers of tobacco. Tobacco cannot be classified elsewhere, and may consequently be reckoned as a food.

DRESS AND THE TOILET.

Besides the industries of clothing, properly so called, this list contains some accessory industries pertaining to neatness of dress and the toilet. Such are the dyers and cleaners, bleachers, bath-keepers, and, finally, barbers and hair-dressers.

FURNITURE.

Here are classed the cabinet-makers, who make the furniture; and the carvers, inlayers, and other workmen who work for its ornamentation. To the furniture varnishers are added carriage painters, who do exactly the same work. Finally come the mirror-makers and upholsterers.

Just as we add the industries which pertain to the neatness of clothing to the industries of clothing, so we join to the furniture industries the scrubbers, waiters, and waitresses who clean the furniture. It is necessary to devote a special heading to the large number of persons who carry on this work.

BUILDING.

The numerous building industries are arranged according to the nature of the raw material they employed. First, those who work in earth, plaster, and stone; then those who use wood; and, lastly, house painting and painted-paper manufacture. The order is explained thus: After enumerating lime kilns, plaster kilns, etc., which prepare the raw material for every kind of construction, we enumerate the building industries in the order in which they co-operate in the building of a house. First, the excavators dig up the soil for the construction of the foundations; then the masons and stone-cutters build the heavy work; next the roofers, zinc-workers, plumbers, and other workmen in metals put on the

roofing and finish the building; and, finally, the carpenters, floor-layers, and house painters carry out the work of arranging and ornamenting the interiors.

Means of transportation does not include either buildings or furniture, and should therefore have a special place.

Clock-smiths only form a specialty in lock-smiths' work, and should therefore be counted as lock-smiths. In the same manner carriage painters do the same kind of work as furniture and piano varnishers. These are, strictly speaking, cabinet-makers, and should be counted as such.

PRODUCTION AND TRANSMISSION OF PHYSICAL FORCES (HEAT, LIGHT, ELECTRICITY, MOTIVE POWER, ETC.).

In all large cities there have recently been erected considerable works for distributing electricity, transforming it into light or motive power. Others distribute compressed air. They are planning at Paris to distribute warm water in the same manner. These industries are being developed so rapidly that we have decided to provide a special heading.

Under this heading manufactures of gas and ice, whose connection with the preceding is evident, are also enumerated.

INDUSTRIES OF LUXURY.

Here are placed industries devoted to the precious metals and gems; then the toy trade, or the making of children's playthings, and of the many small articles of various kinds which the French merchants class together under the name of *Articles de Paris* (fans, sun-shades, tobacco-pouches, pocket-books of various kinds, etc.).

INDUSTRIES PERTAINING TO THE SCIENCES, LETTERS, AND ARTS.

Here are placed the polygraphic industries: printers, lithographers, photgraveurs, book-stitchers, and book-binders. We do not include in polygraphic industries the manufacture of

paper, which is inseparable from the manufacture of paste-board and celluloid. It is plain that these last have nothing in common with the polygraphic industries.

INDUSTRIES PERTAINING TO REFUSES.

Here are included rag gatherers and night-men.

OTHER INDUSTRIES.

This heading provides elasticity, and allows for any omission which, in spite of care, may occur.

INDUSTRIES NOT WELL DETERMINED.

Many persons think that they designate their occupations exactly by calling themselves "maker" or "manufacturer," without adding what they make. Others, still more numerous, call themselves "laborers"; and frequently, indeed, they have no other way of designating themselves. These are persons who have no regular occupation, and live from day to day by different kinds of labor which needs no apprenticeship, and to these it seems best to devote a special heading.

IV. TRANSPORTATION.

We distinguish between maritime and fresh-water navigation, transportation by streets, roads, and railroads. Just as we place under the heading "Railroads" the workmen who repair the road, as well as those who manage the trains, so we place under the heading "Transportation by streets and roads" the workmen who repair the streets and roads. In the same way, under the heading "Transportation by canals and rivers," we include those who repair these means of communication. So, also, under the heading "Maritime transportation" we place the agents who see to the maintenance of harbors, light-houses, and semiphores. It has already been pointed out that the practical difficulty of distinguishing between sailors on fishing boats and those on transportation

vessels obliges us to class under this heading the marine fishermen.

Posts and telegraphs are naturally placed under the industry of transportation.

V. COMMERCE.

Here is encountered a serious difficulty. Almost all industrial products demand two distinct categories of individuals: Manufacturers and merchants. These two classes are different from every point of view, and, nevertheless, in the current language of all nations they bear the same name. The man who sells us a hat is not the man who made it, and yet both are called "hatters." At the census taking both the manufacturer and the merchant will claim the same occupation, and both will believe that they have answered accurately the question put to them. What, then, shall the census-taker do when he has in his hands the official record of a "hatter"? Shall he consider him as a manufacturer, or as a merchant simply?

The excellent English nomenclature has answered it by suppressing entirely the distinction between manufacturers and merchants. Most of its headings are reduced to this model: "Persons working and dealing in tobacco and pipes," or, again, "House and shop-fittings maker, dealer." It is, indeed, very difficult to avoid this confusion, but it is a thing much to be regretted. Science has need of distinguishing between manufacturers and dealers. They are different from every point of view, as in the nature of their occupations; the influence which they may have upon health, the kind of instruction which they have; their very manner of thinking and acting are entirely different; their interests are often antagonistic. One could doubtless distinguish them by adding to the census list a supplementary question which might be reduced to something like this: Is the above mentioned a manufacturer or merchant? This supplementary question would perhaps do away with the difficulty referred

to. We are unable to decide whether to unite manufacture and commerce, but we have considered the confusions which might arise. With the aim of avoiding the difficulty, there are introduced among commercial occupations the same abstract divisions as among the industrial occupations. As we distinguish industries of metals, skins, furniture, etc., so we distinguish trades in metals, skins, furniture, etc. In this way the confusions which might arise between industry and trade would have much less inconvenience, since one would always have the possibility of adding the manufacturers to the merchants, who sell the same products¹.

Moreover, if manufactures could be sufficiently distinguished from trade, there would be the advantage of comparing the number of those who make a certain class of products with the number of those who limit themselves to retailing them.

These motives led our Austrian colleagues, who were recasting their classification at the time we were elaborating ours, to follow the same methods, and to introduce, as we propose to do, the same abstract divisions among trading occupations as among the industrial. In addition, there are added certain lists for merchants who carry on all sorts of trade at once, and who particularly are so numerous in country towns.

¹ It is important to distinguish clearly between Manufacture and Commerce. This is what we propose :—

Definition of Manufacturer.—Any person making any products whatsoever (either by means of raw materials or manufactured products), or attached in any manner whatever to their manufacture, should be considered as a manufacturer, and classed in the list comprised under the heading “Manufacture.”

A person who is both manufacturer and merchant should be classed as a manufacturer.

Persons carrying on industries having for their principal aim the maintenance, repair, or establishment of articles already manufactured, should be considered as manufacturers. Thus, a mender of broken china is considered as a manufacturer. A dealer in umbrellas, who repairs broken umbrellas, is considered as a manufacturer, although he often calls himself an umbrella merchant. On the whole, the word manufacturer, or *industriel*, is taken in its broadest sense. Thus it will happen that, when one does not know exactly whether a person is a manufacturer or a merchant, it will be necessary usually to class him as a manufacturer (*industriel*).

Definition of Merchant.—Every person who is principally concerned with selling articles manufactured by others, and who does not submit them to any elaboration, should be considered as a merchant, and should be classed in the list entitled “Trade.”

One who does not sell but rents (for example, a livery stable keeper) is considered as carrying on a trading occupation, and termed a merchant.

Finally, we have reserved certain headings for those who designate themselves as "merchant" (*negociant*) or "employee of trade" without defining the trade they are engaged in.

VI-IX. PUBLIC ADMINISTRATION AND THE LIBERAL ARTS.

There is little explanation to be given about this part of our nomenclature; it is copied, or very nearly so, from the usual classifications, which all resemble each other.

Under Public Administration there should be classed only those officers who are not comprised under any other rubric. Thus, the officials of post-offices would not be comprised under the head "Administration." If we adopt a different plan, we would be liable to find an abnormal number of officers in countries where, for example, railroads belong mostly to the government.

Veterinary surgeons are classed in the medical profession, and we do not think that we have done them too much honor, considering the great advances which their art has made in medical science. It is necessary to distinguish, as far as possible, professors in institutions of instruction maintained by the government from those teaching in private institutions or in families. Many persons, indeed, not having succeeded in any of the liberal arts, call themselves private teachers, without having any right to that title. Private instruction is one of those occupations which our colleague, Mr. Ogle, calls the "*professions refuges*." On the contrary, all professors of public instruction are carrying on the really noble occupation of educators.

We class among the artists designers for the industrial arts, or who make designs for painted papers, or for printing upon fabrics, or for decorating ceramics, etc. A special list is included for persons who think they are answering the question put by the census in calling themselves by a title or honorable distinction, as, for example, deputy, alderman, or burgomaster, etc., or by a diploma without any immediate professional utility, or by a designation indicating solely

the social position, as in England, *esquire*; in Germany, *bürger* or *privat*, etc. Though these could be classified under the list "Occupation Unknown," it is advisable to use the rudimentary information which they give about their social position.

Under this same heading should be classed persons who give an occupation they no longer pursued, such as *ancien notaire*, when they bear no right to such a term.

X. MISCELLANEOUS.

Here are classed domestics, who could not be placed under any other class of occupations, unproductive individuals, and, lastly, persons whose occupation is unknown.

Among domestics it is necessary to provide special headings for cooks and coachmen, because it is very difficult, in practice, to distinguish domestic cooks from those who carry on the same occupation as a business, as cooks in restaurants, coachmen at livery stables. If we are careful to give special headings, it will always be possible to know at least the total number of cooks and coachmen.

Unproductive persons may be either simply unoccupied, temporarily or permanently, or else incapable of producing. This incapacity for production is temporary when it is due to youthful age, such as, for example, that of children or school pupils, etc.; but it is most often permanent, and constitutes for society a burden with no compensation, when it is due to a state of incurable malady, or of immorality. These considerations will doubtless justify the order in which we have arranged the different categories of unproductive individuals.

CLASSIFICATION OF UNPRODUCTIVE INDIVIDUALS.

Unoccupied.	Temporarily.	447. Persons temporarily without employment.
	Permanently.	448. Persons with no regular occupation.

Incapacity for work.	{	<i>Temporary. . .</i>	{	449. Children without occupation.
			{	450. School children.
				451. Students.
	{	<i>Constituting a burden to society without compensation.</i>		452. Sick persons and hospital inmates.
				453. Insane persons.
				454. Prisoners.
				455. Beggars, vagrants, and prostitutes.

Distinctions to be Established in Each Occupation.

It remains now to select the categories and distinctions to be established in each occupation. In no country are they so numerous or well chosen as in Germany. Unfortunately, all countries do not expend for the occupation classification as large an amount of money as Germany devoted to its census of occupations for 1882.

In every occupation it is necessary to distinguish sex. There is no country, indeed, which does not make this distinction.

In many countries we can distinguish at least two categories in each occupation: (1) Those who work in their own interest; (2) those who work in the interest of others.

This distinction is very important. In England, for example, we can go still further in this direction and make two sub-divisions in each of these two categories. Among those who work in their own interest we may distinguish (*a*) employers, properly so-called; (*b*) sub-employers, contractors, and others,—that is, persons to whom the chief contractor furnishes the raw material or the capital, and who, themselves becoming sub-contractors, engage workmen, and make them do the work.

Among those who work in the interests of others we can distinguish (*a*) the employes (*employés*); (*b*) the laborers (*ouvriers*). These four categories are separated in the German statistics. The sex is naturally distinguished in each of these. Thus, each of the 153 occupations included in the German classification is divided into eight categories, and

these eight sub-divisions will be found in almost all tables considered.

It is important to determine what one means by a workman. A workman who carries on any other occupation than that of his employer evidently should be classed in the rubric which concerns him and not in that which concerns his employer. For example, a carpenter employed in crockery works should be considered as a carpenter, though his employer is classed as a manufacturer of crockery.

There is another important distinction to be noted, especially in countries where people are occupied in caring for the families of workmen. In each of the eight categories of which we have just spoken Germany shows the number of members of family without special occupation (separating those less than fourteen years from those of fourteen years), and domestics attached to the person. (*Argehörige ohne Erwerbsthätigkeit im Hauptberuf.*) The French census in 1886 undertook this inquiry, and following censuses have continued the work. In England these distinctions are not needed; the members of the family without occupation are counted in the list "No Occupation." It is however very important to attach to the occupation considered all those who live upon it indirectly. Above all, if we distinguish the family of the employer from the family of the employes and workmen, we can show the extent of the burdens of family which weigh upon these three classes of persons.

Finally, there is another piece of information of great importance, namely, the age of the persons who are carrying on each occupation. This distinction is of great interest from all points of view. It enables us to establish mortality rates of occupation, and aids in establishing insurance and sick funds. England has the great merit of having always distinguished in the ages of the individuals of each occupation. Switzerland has done the same under the direction of M. Kummer. In France I have introduced the same distinction for the city of Paris in the last two censuses, and the

PLAN FOR THE CLASSIFICATION OF OCCUPATIONS PRESENTED TO THE INTERNATIONAL STATISTICAL INSTITUTE AT VIENNA.

A. GENERAL ABSTRACT OF THE THREE NOMENCLATURES PRESENTED.

GENERAL DIVISIONS.		1ST NOMENCLATURE.	Number of Headings			
			In the 1st Nomenclature.	In the 2nd Nomenclature.	In the 3rd Nomenclature.	
A. PRODUCTION OF THE RAW MATERIALS.	I. AGRICULTURE	1. Cultivation of arable land	1	1	3	
		2. Gardening and market gardening	1	1	3	
		3. Forestry	1	1	2	
		4. Stock raising	1	1	7	
		5. Raising of small animals	1	1	6	
		6. Fresh-water fish and game	1	1	3	
	Total number of headings given up to agriculture		6	6	24	
	II. EXTRACTION OF MINERALS	7. Mines	1	2	18	
		8. Quarries	1	2	13	
		9. Salt mines, etc.	1	2	2	
Total number of headings given to extraction of minerals		3	6	33		
B. TRANSFORMATION AND EMPLOYMENT OF THE RAW MATERIALS.	III. MANUFACTURE	a Industries classified by materials used.	10. Textiles	1	13	58
		11. Skins, hides, and hard animal matter	1	5	24	
		12. Wood	1	7	12	
		13. Metallurgy	1	15	52	
		14. Ceramics	1	4	11	
		15. Chemical products and analogous	1	7	29	
		16. Industries of food	1	12	22	
		17. " " dress and the toilet	1	11	19	
		18. " " furniture	1	5	8	
		19. " " buildings	1	8	16	
		20. Construction of apparatus of transportation	1	4	6	
		21. Production and transmission of physical forces (heat, light, etc.)	1	2	5	
		22. Luxurious industries and those pertaining to the arts, letters, and sciences	1	8	22	
		23. Industries of waste materials	1	1	2	
		24. Other industries	1	1	1	
		25. Industries not well determined	1	2	2	
		Total number given up to industries		16	105	289
	IV. TRANSPORTATION	26. Maritime transportation	1	3	4	
		27. Fresh-water transportation	1	2	2	
		28. Street, road, and bridge transportation	1	3	5	
29. Railroad transportation		1	1	1		
30. Post, telegraph, and telephone transportation		1	1	1		
Total number of headings given to transportation		5	10	13		
C. PUBLIC ADMINISTRATION AND LIBERAL ARTS.	V. TRADE	31. Banks, establishments of credit, exchange, and insurance	1	2	3	
		32. Brokerage, commission, exportation	1	2	2	
		33. Trade in textiles	1	1	1	
		34. " " skins, leather, fur	1	1	1	
		35. " " wood	1	1	1	
		36. " " metals	1	1	1	
		37. " " ceramics	1	1	1	
		38. " " chemicals, drugs, dyes	1	1	1	
		39. Hotels, cafés, restaurants, saloons	1	1	4	
		40. Other trade in food stuffs	1	1	6	
		41. Trade in clothing and toilet articles	1	3	5	
		42. " " furniture	1	2	2	
		43. " " building materials	1	2	2	
		44. " " combustibles	1	1	1	
		45. " " means of transportation	1	1	1	
		46. " " articles of luxury, or pertaining to the arts, letters, and sciences	1	5	5	
		47. Trade in waste materials	1	1	2	
	48. Other sorts of trade	1	4	4		
	49. Undetermined trade	1	4	4		
	Total number of headings devoted to trade		19	35	47	
D. MISCELLANEOUS.	VI. PUBLIC FORCE	50. Land army	1	1	1	
		51. Naval army	1	1	1	
		52. Gendarmery and police	1	1	1	
	Total number of headings devoted to the public force		3	3	3	
	VII. PUBLIC ADMINISTRATION	53. Public administration	1	1	1	
	VIII. LIBERAL ARTS	54. Ministers and religious orders	1	4	5	
		55. Law	1	2	4	
		56. Medicine	1	7	7	
		57. Instruction	1	2	4	
	IX. PERSONS LIVING SOLELY ON THEIR INCOMES	58. Sciences, letters, and arts	1	4	7	
59. Persons living solely on their incomes		1	2	4		
Total number of headings devoted to liberal arts		6	21	31		
X. DOMESTICS AND MISCELLANEOUS	60. Domestics	1	4	5		
	61. Persons temporarily without employment	1	1	1		
	62. Persons with no occupation	1	1	1		
	63. Unclassified	1	2	6		
	64. Beggars, vagrants, prostitutes	1	1	1		
	65. Profession unknown	1	1	1		
Total headings devoted to domestics and miscellaneous		6	10	15		
Total number of headings of each nomenclature		65	197	456		

Minister of Commerce has adopted it for the census which is now being taken. Germany likewise adopted it for the census of 1882. Large groups of ages, as groups of ten years, and even twenty years, will suffice. The four kinds of distinctions which we have just indicated — age, sex, position of employer and employe in his occupation, and the enumeration of the members of the family living indirectly upon the occupation without carrying it on themselves — appear to us so important that a census of occupation should never fail to present them.

The German census furnishes many other very interesting points about each occupation, but none more so than the preceding. It distinguishes carefully between the principal occupation (the only one taken into account in most countries) and the accessory one (*Hauptberuf* and *Nebenberuf*). It distinguishes for each occupation and sub-division of occupations the number of those carrying on the designated occupation as their only one from those who have an accessory occupation, with an abstract indication of that accessory occupation; and, lastly, the number of those who only carry on the occupation designated as an accessory, and who have, besides, a principal occupation, with summarized statement of that occupation.

The following resolutions are offered: —

I. That the International Statistical Institute attaches great importance to classifying the census of occupations in different countries upon some common basis of comparison.

II. That it should present for adoption by statistical bureaus the three classifications accompanying this. It is to be observed that each is a development of the preceding, and that for one of the rubrics its further development may be conveniently substituted.

The statistical bureau should distinguish in each occupation: 1. The employers, employes, laborers; 2. Members of the family without special occupation, who live at the expense of one of the above three categories of workmen; 3 and 4. For each category given, the sex and age.

B. DETAILED SCHEME OF THE THREE NOMENCLATURES PROPOSED.

I. AGRICULTURE.

1st Classification.	2nd Classification.	3rd Classification.
1. CULTIVATION OF ARABLE LAND.	1. <i>Cultivation of arable land.</i>	1. Landowners cultivating their own land. 2. Farmers, <i>métayers</i> , cultivators. 3. Laborers, farm servants, etc.
2. GARDENING AND MARKET-GARDENING.	2. <i>Gardening and market-gardening.</i>	4. Horticulturists, market-gardeners. 5. Nursery-men. 6. Mushroom raisers.
3. FORESTRY.	3. <i>Forestry.</i>	7. Woodmen. 8. Wood cutters, faggot makers, charcoal burners.
4. RAISING OF FARM STOCK.	4. <i>Raising of farm stock.</i>	9. Raising of horses. 10. " " cattle. 11. " " sheep. 12. " " goats. 13. " " hogs. 14. " " dogs. 15. " " poultry.
5. RAISING OF SMALL ANIMALS.	5. <i>Raising of small animals.</i>	16. " " ornamental birds. 17. " " fish. 18. " " oysters. 19. " " bees. 20. " " silk-worms. 21. " " other small animals.
6. FRESH-WATER FISH AND GAME.	6. <i>Fresh-water fish and game.</i>	22. Fresh-water fish. 23. Game. 24. Destroyers of harmful animals.

II. EXTRACTION OF MINERALS.

1st Classification.	2nd Classification.	3rd Classification.
7. MINES.	7. <i>Mines of combustible materials.</i>	25. Coal. 26. Anthracite. 27. Lignite. 28. Peat. 29. Petroleum.
	8. <i>Mines of metallic ores.</i>	30. Iron mines. 31. Copper " 32. Zinc "

II. EXTRACTION OF MINERALS.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
7. MINES.— Continued.	8. <i>Mines of metallic Ores.— Continued.</i>	33. Tin mines. 34. Nickel mines. 35. Antimony “ 36. Mercury “ 37. Other common metals. 38. Gold mines. 39. Silver “ 40. Lead “ (argentiferous or not). 41. Platinum mines. 42. Other precious metals.
8. QUARRIES.	9. <i>Quarries of hard rock (stone, bitumen, cement, etc.</i>	43. Granite quarries ¹ . 44. Diamond and precious stones. 45. Stone quarries ² . 46. Marble “ ³ . 47. Sandstone quarries ⁴ . 48. Slate “ ⁵ . 49. Plaster “ ⁶ . 50. Lime “ ⁷ . 51. Bitumen “ 52. Cement “ ⁸ .
	10. <i>Quarries of soft rock (sand, etc.).</i>	53. Sand “ ⁹ . 54. Clay “ 55. China clay “
9. SALT MINES, ETC.	11. <i>Rock salt and salt from marshes.</i>	56. Rock salt and salt from marshes.
	12. <i>Extraction of other sub- stances in solution.</i>	57. Extraction of other substances in solution.

III. MANUFACTURE.

1st Classification.	2nd Classification.	3rd Classification.
10. TEXTILES.	13. <i>Cotton.</i>	58. Spinning. 59. Weaving. 60. Knitting. 61. Cotton-wool making. 62. Other cotton industries.
	14. <i>Flax and hemp.</i>	63. Flax and hemp retting ; making of tow. 64. Flax and hemp spinning. 65. Flax and hemp weaving. 66. Other flax and hemp manufac- tures.

NOTE.— Excluding : ¹ Makers of slabs, 296 ; ² Stone cutters, 296 ; ³ Marble cutters, 297 ; ⁴ Sandstone cutters, 296 ; ⁵ Slate cutters, 296 ; ⁶ Plaster kilns, 293 ; ⁷ Lime kilns, 293 ; ⁸ Cement kilns, 293 ; ⁹ Brick makers, etc., 209.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
10. TEXTILES.— Continued.	15. <i>Straw.</i> ¹	67. Common straw (baskets, mats, etc.). 68. Fine straw (hats, trimmings).
	16. <i>Other textiles of vegetable origin.</i>	69. Ramie. 70. Jute. 71. Cocoa. 72. Aloes. 73. Couch-grass. 74. Alfa. 75. Miscellaneous (net matting).
		76. Twine. 77. Thread. 78. Rope, cordage.
		79. Preparation of the wool. 80. Spinning. 81. Weaving. 82. Knitting. 83. Carpet weaving.
		84. Menders and repairers of carpets, tapestry, shawls, and other woollen stuffs. 85. Other woollen industries.
		86. Drying and winding of cocoons. 87. Spinning. 88. Weaving. 89. Plush and velvet. 90. Other silk industries.
	19. <i>Silk.</i>	91. Mixed webs. 92. Laces. 93. Tullies. 94. Blondes. 95. Crape. 96. Others.
	20. <i>Mixed webs.</i> ²	97. Ribbons. 98. Fringes and braids. 99. Gold embroidery, uniforms, chasubles, etc. 100. Other embroideries. ³
	21. <i>Laces, tulle, blond-lace, crêpes, etc.</i>	101. Pluckers and cutters of hair. 102. Cleaners, scourers, and dressers of hair. 103. Brushes, brooms, and hair pencils. 104. Hair cloths. 105. Felt. ⁴
	22. <i>Passementerie.</i>	
	23. <i>Hair and horse hair.</i>	

NOTE.—Excluding : ¹ Furniture workers in straw, 87 ; ² Elastic tissues (suspenders, garters, elastic stockings), 80 ; ³ Embroidery on linen goods, 268 ; ⁴ Hat makers, 266.

III. MANUFACTURE.—Continued.

1st Classification.	2nd Classification.	3rd Classification.
10. TEXTILES.— Continued.	24. <i>Feathers.</i>	106. Feather dressers; bed feathers.
		107. Dressers of ornamental feathers.
		108. Quills for writing.
		109. Other feather industries.
		110. Cotton.
	25. <i>Dyeing, printing, preparation and sponging of threads and tissues.</i> ¹	111. Flax and hemp.
		112. Straw.
		113. Wool.
		114. Silk.
		115. Feathers.
	26. <i>Skins and hides.</i>	116. Tanners. ⁴
		117. Curriers.
		118. Varnished skins.
		119. Imitation skins.
		120. Morocco dressers.
		121. Hongroyeurs.
		122. Tanners.
		123. Chamois dressers.
		124. Parchment makers.
		125. Machine belts.
11. SKINS, HIDES, AND HARD ANIMAL MATTER.	27. <i>Making of various leather articles.</i> ²	126. Leather box and trunk makers.
		127. Leather stampers and moulders.
		128. Leather gilders and silver platers.
		129. Case and sheath makers, portfolio makers, etc.
		130. Sausage-skin makers.
	28. <i>Gut working.</i>	131. Makers of gold-beater's skin.
		132. Makers of cat-gut strings.
		133. Furriers, etc.
		134. Bone.
		135. Ivory.
	29. <i>Furriers.</i>	136. Horn.
		137. Shell.
		138. Whalebone.
		139. Pearl-shell.
		140. Wood sawyers, sawing machines.
12. WOOD.	30. <i>Hard animal matter.</i> ³	141. Coopers.
	31. <i>Saw mills, etc.</i>	142. Wood turners.
	32. <i>Coopers.</i>	
	33. <i>Wood turners.</i>	

NOTE.—Excluding: ¹ Dyers and cleaners, 82; ² Cordwainers and boot makers, 79; glove makers, 80; shoemakers, 80; belt makers, saddlers, and harness makers, 101. ³ Hair and horse hair, 23. ⁴ Excluding pluckers and cutters of hair, 101.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
12. WOOD.— Continued.	34. <i>Other wood industries.</i> ¹	143. Modelers in wood. 144. Bushel and sieve makers. 145. Toy and box makers. 146. Packers. 147. Other wood industries.
	35. <i>Basket-makers.</i>	148. Basket-makers (wicker, birch broom, etc.).
	36. <i>Cork.</i>	149. Cork.
	37. <i>Other industries of woody materials.</i>	150. Articles in bamboo, rattan, cane, etc. ³ 151. Other industries of woody materials.
	38. <i>Forging and rolling of iron and steel; casting, blast furnaces, puddling furnaces.</i>	152. Forging and rolling of iron and steel, casting, blast furnaces, puddling furnaces.
13. METALLURGY. a. FORGING OF METALS.	39. <i>Forging and rolling of other common metals.</i>	153. Forging and rolling of copper. 154. “ “ “ “ zinc. 155. “ “ “ “ tin. 156. “ “ “ “ nickel. 157. Forging and rolling of antimony. 158. Forging and rolling of aluminum. 159. Forging and rolling of lead. 160. Forging and rolling of other common metals.
	40. <i>Recasting of common metals once used.</i>	161. Recasting of common metals once used.
	41. <i>Refiners of precious metals.</i>	162. Refiners of precious metals.
	42. <i>Machines and tools principally or exclusively of iron.</i> ²	163. Iron cast and worked up for building; pieces of architecture cast; rails, cushions, axles, springs for carriages, and other pieces for constructing machines. 164. Machines of all kinds, fixed and movable motors, heating and ventilating apparatus, etc. Farming implements, jacks, velocipedes, seeding machines. Machine finishers. 165. Founders. 166. Smiths, tool makers, edge tools, sheet-iron workers, etc. 167. Farriers. 168. Armorers, makers of fire arms (guns, cannon, etc.).
b. MAKING OF METAL ARTICLES.		

NOTE.—Excluding: ¹ Wooden shoes and galosh makers, 79; furniture makers, 87; carpenters and joiners, 97; wheelrights and carriage makers, 100; boat makers, 102; makers of canes and umbrellas, 81; ² Makers of iron or brass beds, 88; ³ Canes and umbrellas, 279.

III. MANUFACTURE.—Continued.

1st Classification.	2nd Classification.	3rd Classification.
13. METALLURGY.— Continued. b. MAKING OF METAL ARTICLES.— Continued.	43. <i>Small articles chiefly or exclusively iron (knives, files, screws, nails, needles, pins, etc.).</i> ¹	169. Cutlery, side arms, burnishers, sharpeners, knife-whetters. 170. File makers. 171. Saw “ 172. Screw and nail makers. 173. Needle makers. 174. Pin makers in all sorts of metal. 175. Makers of steel pens. 176. Makers of taps and other small steel and iron articles.
	44. <i>Articles chiefly copper.</i>	177. Copper and bronze founders. 178. Repoussé workers, cleansers. 179. Mounters.
	45. <i>Articles chiefly lead.</i> ²	180. Lead founders, lead pipes. 181. Type founders.
	46. <i>Articles chiefly tin.</i>	182. Pewterers. 183. Tin beaters, tin sheet. 184. Other tin industries.
	47. <i>Articles of other metals.</i> ³	185. Articles of zinc. ⁶ 186. “ “ nickel, nicklers. 187. “ “ aluminum. 188. “ “ other metals. 189. “ “ alloy (German silver).
	48. <i>Coppersmiths, tinnern, tin-plate workers.</i>	190. Coppersmiths, tinnern. 191. Tin-plate workers, lamp makers, preserve cans, and copper wares.
	49. <i>Metal turners, décolteurs.</i>	192. Metal turners, <i>décolteurs</i> .
	50. <i>Metal drawers, wire drawers, wires.</i> ⁴	193. Metal drawers, wire drawers, wires. 194. Telegraph and telephone wires. 195. Metallic ropes and cables. 196. Wire workers, metal webs. 197. Iron and brass chains.
	51. <i>Metal stampers, relief workers, coins and medals.</i>	198. Metal stampers, relief workers. 199. Coins and medals.
	52. <i>Other metallurgical industries.</i> ⁵	200. Makers of surgical instruments. 201. Makers of delicate instruments, optical, etc., and those pertaining to photography, telegraphy, etc. ⁷

NOTE.—Excluding : ¹ Locksmiths, 96 ; ² Plumbers, 95 ; ³ Industries of precious metals (gilders, gold beaters, etc.), 106 ; ⁴ Wire drawers of precious metals, 106 ; ⁵ Industries of precious metals, 106 ; ⁶ Zinc roofers, 300 ; ⁷ Musical instruments, 335.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
14. CERAMICS.	53. <i>Glass making.</i>	204. Glasses and crystals, mirrors.
	54. <i>Porcelain and crockery.</i>	205. Porcelain. 206. Pipe clay. 207. Crockery.
	55. <i>Terra-cotta.</i>	208. Potters. 209. Brick and tile makers. 210. Earthen and sandstone pipe. 211. Cisterns and filters.
	56. <i>Others.</i>	212. Articles of cement, concrete, imitation stone, etc. 213. Mosâics. 214. Others.
15. CHEMICAL PRODUCTS, PROPERLY SO CALLED AND ANALOGOUS.	57. <i>Chemical products, properly so called.</i>	215. Making of chemicals used in the arts and for medicine (acids, soda, potash, alum, etc.).
		216. Refineries of sea salt.
		217. " " sugar.
		218. Match factories.
	58. <i>Dyes and inks; paints.</i>	219. Factories for explosible materials (powder, dynamite, etc.).
		220. Making of artificial mineral waters.
		221. Manufacture of colors with lead base (white or red lead, etc.).
		222. Manufacture of oxide of zinc and other colors of metallic base.
		223. Manufacture of colored pencils, paste pencils.
		224. Manufacture of other colors (aniline, vegetable dyes, cochineal, etc.).
		225. Manufacture of writing inks.
		226. Manufacture of thick inks.
		227. Manufacture of tallow, glue, fats, and animal oils, bone black, albumen, artificial manure of animal origin, etc.
		228. Manufacture and refining of vegetable oils.
		229. Refining of petroleum, vaseline, etc.
	60. <i>Substances derived from fatty bodies (wax candles, soap, etc.).</i>	230. Manufacture of candles.
		231 " " wax candles.
		232. " " soap.

III. MANUFACTURE.—Continued.

1st Classification.	2nd Classification.	3rd Classification.
15. CHEMICAL PRODUCTS, PROPERLY SO CALLED AND ANALOGOUS.— Continued.	61. <i>Coatings and impermeable substances.</i>	233. Varnish, wax, blacking. 234. Waxed cloths, linoleum, and gummy articles. 235. India rubber and gutta-percha. 236. Bitumen, asphalt. 237. Tar, resin, resinous products, kindling, patent fuel, etc.
	62. <i>Paper industries.</i> ¹	238. Manufacture of paper. 239. Manufacture of paste-board, articles of mill-board. 240. Manufacture of celluloid.
	63. <i>Others.</i> ²	241. Flour and starch manufacture, glucose, dextrine. 242. Perfumery manufacture. 243. Others.
16. FOOD INDUSTRIES.	64. <i>Millers and flour factors.</i>	244. Millers and flour makers.
	65. <i>Bakers.</i>	245. Bakers.
	66. <i>Other industries pertaining to the preparation of cereals.</i>	246. Pastry cooks. 247. Biscuits. 248. Dough cakes, sea biscuits.
	67. <i>Butchers, pork, tripe, and salt provision dealers.</i>	249. Butchers. 250. Pork, tripe, and salt provision dealers.
	68. <i>Preserved meat, cheese, creams, etc.</i>	251. Canned meats. 252. " fish. 253. Manufacture of cheese, cream, condensed milk, etc.
	69. <i>Vinegar, mustard, and other condiments.</i>	254. Vinegar, mustard, and other condiments.
	70. <i>Sugar refiners.</i>	255. Sugar refiners.
	71. <i>Other industries pertaining to solid foods.</i>	256. Canning of vegetables. 257. Chocolate making. 258. Coffee burners. 259. Making of ices and confections.
	72. <i>Breweries and malt manufactories.</i>	260. Manufacture of malt. 261. Breweries.
	73. <i>Distilleries and liquor manufactories.</i>	262. Distilleries. 263. Manufacture of liquors.
	74. <i>Other industries pertaining to drinks.</i>	264. Other industries pertaining to drinks.
	75. <i>Manufacture of tobacco.</i>	265. Manufacture of tobacco.

NOTE.—Excluding : ¹ Book-binders, stitchers, etc., 110 ; ² sugar refiners, 70 ; distillers, 73.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
17. INDUSTRIES OF DRESS AND THE TOILET.	76. <i>Makers of hats, caps, skull caps, smoking caps, etc.</i>	266. Makers of hats, caps, skull caps, smoking caps, etc.
	77. <i>Tailors, clothiers, costumers.</i>	267. Tailors, clothiers, and costumers.
	78. <i>Sewers, makers of dresses and artificial flowers.</i>	268. Sewers, makers of linen garments, shirts, plain needlework, corsets, embroidery on linen, etc. 269. Fashionable dressmakers. 270. Flowers, leaves, wreaths.
	79. <i>Manufacturers of footwear.</i>	271. Cord-wainers and shoemakers. 272. Socks and slippers. 273. Wooden shoes, galoshes, etc.
	80. <i>Other industries pertaining to dress.¹</i>	274. Glove makers. 275. Pantaloon and gaiter makers. 276. Makers of belts, etc. 277. Metallic and cloth buttons. 278. Elastic tissues, suspenders, garters, elastic stockings, trusses, etc.
	81. <i>Canes, parasols, and umbrellas.</i>	279. Canes, parasols, and umbrellas.
	82. <i>Dyers and cleaners.²</i>	280. Dyers and cleaners.
	83. <i>Bleachers, wash-houses and laundries, washers and ironers.</i>	281. Bleachers, wash-houses and laundries, washers and ironers.
	84. <i>Baths.</i>	282. Baths.
	85. <i>Barbers, hair dressers and wig makers, hair work.</i>	283. Barbers, hair dressers and wig makers, hair work.
18. FURNITURE INDUSTRIES.	86. <i>Others.</i>	284. Others.
	87. <i>Cabinet-makers, manufacturers of furniture.³</i>	285. Cabinet makers, manufacturers of furniture, fluters and straw-workers for cabinet work. 286. Wood carvers, inlayers, fret-work makers in wood and brass. 287. Piano and furniture varnishers, carriage painters.
	88. <i>Upholsterers, bed furnishings.</i>	288. Upholsterers, makers of mattresses and other bed furnishings, makers of cushions, blinds, etc. 289. Makers of iron and brass beds.

NOTE.—¹ Excluding furriers, 29. ² Not to be confounded with dyers, 25. ³ Excluding carpenters, 97.

III. MANUFACTURE — *Continued.*

1st Classification.	2nd Classification.	3rd Classification.
18. FURNITURE INDUSTRIES.— Continued.	89. <i>Glasses and mirrors.</i> ¹	290. Making of glass and mirrors; polishers and silverers of glass.
	90. <i>Scrubbers, waiters, and waitresses.</i>	291. Scrubbers, waiters and waitresses.
	91. <i>Others.</i>	292. Others.
19. BUILDING INDUSTRIES.	92. <i>Lime and plaster kilns, manufactories of cement.</i>	293. Lime and plaster kilns, manufactories of cement.
	93. <i>Excavators, well-sinkers.</i>	294. Excavators, well-sinkers.
	94. <i>Plasterers and stone cutters.</i> ²	295. Workers in masonry and plasterers.
		296. Stone-cutters, flagstone makers, sandstone workers, slate-cutters, etc.
		297. Marble workers, carvers.
		298. Ornamenters, moulders, decorators, moulding makers.
		299. Chimney builders and sweeps, floor tilers, tilers.
	95. <i>Roofers, zinc workers, plumbers, gas-fitters.</i>	300. Roofers, zinc workers, plumbers, and gas-fitters,
	96. <i>Locksmiths.</i> ³	301. Locksmiths.
	97. <i>Carpenters and joiners.</i>	302. Carpenters.
		303. Joiners, banister makers.
		304. Planers, floor layers.
	98. <i>House painters, etc.</i>	305. Making of painted papers.
		306. Colorers of paper. ⁵
		307. Painters, glaziers, white-washers, gilders, sign painters.
20. CONSTRUCTION OF APPARATUS OF TRANSPORTATION.	99. <i>Others.</i>	308. Others.
	100. <i>Wheelrights and carriage makers.</i> ⁴	309. Wheelrights.
		310. Carriage makers.
	101. <i>Saddlers, harness makers, whip and lash makers.</i>	311. Saddlers, harness makers, whips and lashes (pack saddles, saddle bows, hames, etc.
	102. <i>Boat making.</i>	312. Building of wooden and iron ships.
		313. Breaking up of boats.
	103. <i>Wagon making.</i>	314. Wagon making.

NOTE.—Excluding: ¹ Looking-glasses without quick-silver, 53; ² Stone breakers, road laborers, etc., 123. ³ Includes coach-smiths. ⁴ Excludes makers of cushions, carriage springs, 42; coach-smiths, 96; carriage painters, 87. ⁵ Includes colorers of play bills.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
21. PRODUCTION AND TRANSMISSION OF PHYSICAL FORCES (HEAT, LIGHT, ELECTRICITY, ETC.).	104. <i>Gas works.</i>	315. Gas works.
	105. <i>Others.</i>	316. Production and transmission of electricity (light, motive power). 317. Production and transmission of heat (water, air, etc.). 318. Production and transmission of cold, artificial ice, etc. 319. Production and transmission of compressed air (pneumatic clocks, motive power, etc.).
22. INDUSTRIES OF LUXURY AND THOSE PERTAINING TO THE ARTS, SCIENCES, AND LETTERS.	106. <i>Industries of precious stones (jewelers, gold-beaters, gold-platers, etc.).</i>	320. Real and imitation jewelry, goldsmiths, lapidaries, jewelers, enamel workers, etc. 321. Gold-beaters, burnishers, drawers of precious metals. 322. Gilders on wood and metal, framers.
	107. <i>Clock-makers.</i>	323. Articles of clock-work. 324. Clock-makers.
	108. <i>Toys, etc.</i>	325. Fans, purses, tobacco pouches, etc.; articles in alabaster, shell, etc. 326. Children's toys, games. 327. Playing cards. 328. Small articles of various kinds, hunting and fishing articles.
	109. <i>Printers, journalists, etc.</i>	329. Letter-press printers, electrotypers. 330. Heliographers, photo-gravure makers. 331. Lithography, copper-plate engraving. 332. Paper stampers, colorers, and illuminators. 333. Editors of papers and periodicals.
	110. <i>Book-binders and stitchers.</i>	334. Book-binders, stitchers and gatherers, paper pressers, folders, marblers, makers of envelopes.
	111. <i>Makers of musical instruments, pianos, lutes.</i>	335. Makers of musical instruments, pianos, lutes.
	112. <i>Copyists, stenographers, translators.</i>	336. Public writers, copyists. 337. Stenographers. 338. Translators, interpreters.

III. MANUFACTURE.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
22. INDUSTRIES OF LUXURY AND THOSE PERTAINING TO THE ARTS, SCIENCES, AND LETTERS.— Continued.	113. <i>Others.</i>	339. Preparers of objects of natural history, taxidermists, naturalists. 340. Managers of theatres and concerts. 341. Others.
23. INDUSTRIES CONCERNED WITH REFUSE MATTER.	114. <i>Industries of refuse matter.</i>	342. Rag gatherers, washers, sorters, shoddy makers, rag rippers. 343. Night-men.
24. OTHER INDUSTRIES.	115. <i>Other industries.</i>	344. Other industries.
25. INDUSTRIES NOT WELL DETERMINED.	116. <i>Makers, manufacturers, and industrials (without other designation).</i> 117. <i>Workmen, task-masters, day laborers, general jobbers, etc. (without other designation).</i>	345. Makers, manufacturers, and industrials (without other designation). 346. Workmen, task-masters, day laborers, general jobbers (without other designation).

IV. TRANSPORTATION.

1st Classification.	2nd Classification.	3rd Classification.
26. MARITIME TRANSPORTATION.	118. <i>Agents specially charged with the maintenance and guarding of marine ports, superintendents of harbors and their agents, dock-keepers, etc.</i> 119. <i>Ship owners and their employes, ship brokers.</i> 120. <i>Sailors not connected with the navy.</i>	347. Agents specially charged with the maintenance and guarding of marine ports, superintendents of harbors and their agents, dock-keepers, etc. 348. Ship owners and their employes, ship brokers. 349. Trading sailors. 350. Fishing sailors.
27. FRESH-WATER TRANSPORTATION.	121. <i>Agents specially charged with the care of streams, rivers, and canals (inspectors of navigation, lock-keepers, etc.).</i> 122. <i>Sailors, boat-men, tow-men, tug-men, and trackers.</i>	351. Agents specially charged with the care of rivers, streams, and canals, inspectors of navigation, lock-keepers, etc. 352. Sailors, boat-men, tug-men, tow-men, and trackers.
28. ROAD, STREET, AND BRIDGE TRANSPORTATION.	123. <i>Agents specially charged with maintenance of streets, sewers, roads, and bridges (sweepers, sewer-men, road laborers, etc.).</i>	353. Agents specially charged with the maintenance of streets, roads, sewers, and bridges (sweepers, sewer-men, road laborers, etc.).

IV. TRANSPORTATION.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
28. ROAD, STREET, AND BRIDGE TRANSPORTATION. — Continued.	124. <i>Coachmen and carters.</i>	354. Carters. 355. Coachmen, carriage cleaners, grooms of liverys, hacks, omnibus, street cars, <i>dili-</i> <i>gences</i> (managers and agents of all sorts).
	125. <i>Street porters and liv-</i> <i>reurs.</i>	356. Street porters, unloaders of boats and wagons, furniture carriers, etc. 357. <i>Livreurs</i> , collecting clerks, etc.
29. TRANSPORTATION BY RAILROAD.	126. <i>Railroads; directors, em-</i> <i>ployes, workmen, agents</i> <i>of every kind.</i>	358. Railroad, directors, employes, workmen, agents of every sort.
30. POST, TELE- GRAPH, AND TELEPHONE.	127. <i>Post, telegraph, and tele-</i> <i>phone.</i>	359. Post, telegraph, telephone.

V. TRADE.

1st Classification.	2nd Classification.	3rd Classification.
31. BANKS, ESTAB- LISHMENTS OF CREDIT, EX- CHANGE, AND INSURANCE.	128. <i>Bankers, exchange brok-</i> <i>ers and their employes.</i>	360. Bankers, directors and em- ployes, agents in establish- ments of credit. 361. Agents of exchange, bill brok- ers, commission agents and their employes.
	129. <i>Insurance companies.</i>	362. Insurance companies.
32. BROKERAGE, COMMISSION, EX- PORTATION.	130. <i>Brokers in various kinds</i> <i>of merchandise, export-</i> <i>ers.</i>	363. Brokers in various kinds of merchandise, exporters.
	131. <i>Brokers without other</i> <i>designation, canvassers,</i> <i>agents, commercial trav-</i> <i>ellers, etc.</i>	364. Brokers without other desig- nation, canvassers, agents, commercial travellers, etc.
33. TRADE IN TEXT- ILES.	132. <i>Wholesale merchants deal-</i> <i>ing in wool, cotton, silks,</i> <i>cloths, linen, and other</i> <i>textiles.</i>	365. Wholesale dealers in wool, cot- ton, silks, cloths, linen, and other textiles.
34. TRADE IN SKINS, LEATHER, AND FURS.	133. <i>Wholesale trade in skins,</i> <i>leather and furs, etc.</i>	366. Wholesale trade in skins, leather, furs, etc.
35. TRADE IN WOODS.	134. <i>Wholesale trade in wood</i> <i>for carpenter work and</i> <i>cabinet work, cork, bark,</i> <i>etc.</i>	367. Wholesale trade in wood for carpenter work, cabinet work, cork, bark, etc.

V. TRADE.—Continued.

1st Classification.	2nd Classification.	3rd Classification.
36. TRADE IN METALS.	135. <i>Trade in metals, etc.</i>	368. Trade in metals.
37. TRADE IN CERAMICS.	136. <i>Trade in raw materials necessary to ceramics, and in ceramic products.</i>	369. Trade in raw materials necessary to ceramics and in ceramic products.
38. TRADE IN CHEMICAL PRODUCTS, DRUGS, PAINTS, ETC.	137. <i>Trade in chemical products, drugs, paints, etc.</i>	370. Trade in chemical products, drugs, paints, etc.
39. HOTELS, CAFES, RESTAURANTS, SALOONS.	138. <i>Hotels, cafés, restaurants, saloons.</i>	271. Wine and liquor merchants. 372. Café keepers. 373. Restaurant and cook-shop keepers. 374. Lodging-house keepers.
40. OTHER TRADE IN FOOD-STUFFS.	139. <i>Other trade in food stuffs (grocers, fruiterers, dealers in seeds, cattle, etc.</i>	375. Grocers. 376. Butter, eggs, cheese, fish, poultry, fruits, and vegetables. 377. Dealers in grain, wheat, corn, and fodder. 378. Dealers and drivers of cattle. 379. Tobacco merchants. 380. Others.
41. TRADE IN CLOTHING AND TOILET ARTICLES.	140. <i>Trade in fabrics and ready-made clothing.</i>	381. Novelties, fabrics, hosiery, haberdashery, gloves, linen goods, and perfumery. 382. Ready-made clothing for men and women. 383. Old clothes, wardrobe dealers, second-hand clothes merchants.
	141. <i>Hat merchants.</i> ²	384. Hat merchants. ²
	142. <i>Dealers in foot-wear.</i> ²	385. Dealers in foot-wear. ²
42. TRADE IN FURNITURE.	143. <i>Furniture, carpets, curtains, bed furnishings.</i>	386. Furniture, carpets, curtains, bed furnishings.
	144. <i>Hardware, household utensils, porcelain, pottery, cut glass, bottles, house furnishings.</i>	387. Hardware, household utensils, porcelain, pottery, cut glass, bottles, house furnishings.
43. TRADE IN BUILDING MATERIALS.	145. <i>Trade in building materials (stones, bricks, plaster, cement, sand, etc.).</i>	388. Trade in building materials (stone, brick, plaster, cement, sand, etc.).
	146. <i>Locating agencies.</i>	389. Locating agencies.
45. TRADE IN COMBUSTIBLES.	147. <i>Dealers in fuel-wood, charcoal, coal, coke, etc.</i>	390. Dealers in fuel-wood, charcoal, coal, coke, etc.
45. TRADE IN MEANS OF TRANSPORTATION. ¹	148. <i>Dealers in horses, asses, etc.</i>	391. Dealers in horses, asses, etc.

¹ Excluding livery-stable keepers, etc. ² Includes only merchants who do not manufacture.

V. TRADE.—Continued.

1st Classification.	2nd Classification.	3rd Classification.
46. TRADE IN ARTICLES OF LUXURY, AND THOSE PERTAINING TO THE ARTS, LETTERS, SCIENCES.	149. <i>Dealers in jewels, clocks, and watches, opticians, etc.</i>	392. Dealers in jewels, clocks, and watches, opticians, etc.
	150. <i>Dealers in notions, children's toys, fans, natural flowers, etc.</i>	393. Dealers in notions, children's toys, fans, natural flowers, etc.
	151. <i>Stationery, libraries, dealers in books, music, and periodicals; book collectors.</i>	394. Stationers, libraries, dealers in books, music, periodicals, book collectors.
	152. <i>Dealers in engravings, paintings, art notions, etc.</i>	395. Dealers in engravings, paintings, art notions, etc.
47. TRADE IN REFUSE MATTER.	153. <i>Dealers and lenders of pianos and other musical instruments.</i>	396. Dealers and lenders of pianos and other musical instruments.
	154. <i>Trade in refuse matters (rags, manure, and rubbish).</i>	397. Rag dealers.
48. TRADE OF OTHER SORTS.	155. <i>Retail shop-keepers without definite specialty.</i>	398. Dealers in natural manure (mud, sewage, manure, etc.).
	156. <i>Merchants on the highway, peddlers, hawkers, packmen, etc.</i>	399. Retail shop-keepers without definite specialty.
	157. <i>Quacks, acrobats, exhibitors of curiosities, wild animals, etc.</i>	400. Merchants on the highway, peddlers, hawkers, packmen, etc.
	158. <i>Other kinds of trade.</i>	401. Quacks, acrobats, exhibitors of curiosities, wild animals, etc.
49. UNDETERMINED TRADE.	159. <i>Accountants and cashiers.</i>	402. Other kinds of trade.
	160. <i>Merchants without other designation.</i>	403. Accountants and cashiers.
	161. <i>Trade employes, shop-girls without other designation.</i>	404. Merchants without other designation.
	162. <i>Shop-clerks without other designation.</i>	405. Trade employes, shop-girls without other designation.
		406. Shop-clerks without other designation.

VI. PUBLIC FORCE.

1st Classification.	2nd Classification.	3rd Classification.
50. LAND ARMY.	163. <i>Land army.</i>	407. Land army.
51. NAVY.	164. <i>Navy.</i>	408. Navy.
52. GENDARMERY AND POLICE.	165. <i>Gendarmery and police.</i>	409. Gendarmery and police.

VII. PUBLIC ADMINISTRATION.

1st Classification.	2nd Classification.	3rd Classification.
53. PUBLIC ADMINISTRATION.	166. <i>Public administration.</i>	410. Public administration.

VIII. LIBERAL ARTS.

1st Classification.	2nd Classification.	3rd Classification.
54. RELIGIOUS ORDERS. ¹	167. <i>Catholic clergy.</i>	411. Secular clergy (arch-bishops, bishops, curés, canons, vicars, officiating clergymen, priests, etc.).
		412. Regular clergy (friars or nuns belonging to congregations or religious orders).
	168. <i>Protestant religion.</i>	413. Protestant religion.
	169. <i>Jewish religion.</i>	414. Jewish religion.
	170. <i>Beadles, head beadles, sextons, and other paid officials.</i>	415. Beadles, head beadles, sextons, and other paid officials.
55. LAW.	171. <i>Magistrates and members of courts of every degree.</i>	416. Magistrates and members of courts of every degree.
	172. <i>Other men of law and their clerks.</i>	417. Lawyers.
		418. Public officers (notaries, attorneys, bailiffs, etc.) and their clerks.
		419. General agents.
56. MEDICINE.	173. <i>Physicians and surgeons.</i>	420. Physicians and surgeons.
	174. <i>Dentists (not physicians).</i>	421. Dentists (not physicians).
	175. <i>Midwives, accoucheurs.</i>	422. Midwives, <i>accoucheurs</i> .
	176. <i>Veterinary surgeons.</i>	423. Veterinary surgeons.
	177. <i>Pharmacists and herbalists.</i>	424. Pharmacists and herbalists.
	178. <i>Nurses, shampooers, cuppers, etc.</i>	425. Nurses, shampooers, cuppers, etc.
	179. <i>Directors (not physicians) of every kind of sanitarium, hospital, asylum, etc., and their employes (attendants, watchers, workingmen, etc.).</i>	426. Directors (not physicians) of every kind of hospital sanitarium, asylums, etc., and their employes (attendants, watchers, workingmen, etc.).
57. INSTRUCTION.	180. <i>Professors of any title whatever in educational institutions maintained by the state, province, commune (primary schools, colleges, universities, etc.).</i>	427. Professors of any title whatever in educational institutions maintained by the state, province, commune (primary schools, colleges, universities, etc.).

NOTE.—¹ The order and nomenclature of the different religions will vary with the country.

VIII. LIBERAL ARTS.—*Continued.*

1st Classification.	2nd Classification.	3rd Classification.
57. INSTRUCTION.— Continued.	181. <i>Other professors.</i>	428. Professors in private institutions. 429. Instructors in private families. 430. Professors in the accomplishments (music, dancing, drawing, fencing, etc.).
58. SCIENCES, LETTERS AND ARTS.	182. <i>Men of letters.</i> 183. <i>Architects, engineers.</i> 184. <i>Plastic arts.</i> 185. <i>Music and the drama.</i>	431. Men of letters. 432. Architects. 433. Geometricians, engineers. 434. Photographers. 435. Painters, sculptors, engravers, designers for decorative arts. 436. Musical artists (composers, instrumentalists, vocalists, etc.). 437. Lyric and dramatic artists, dancers, chorus girls, etc.

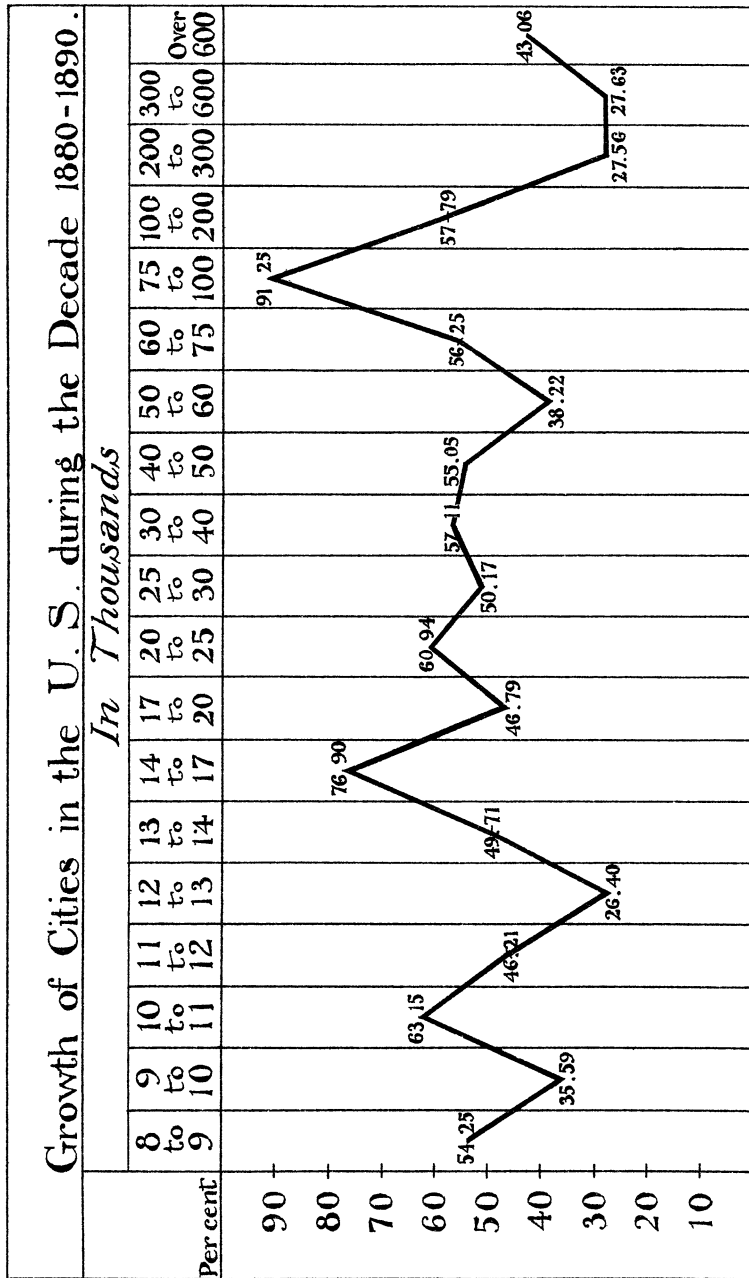
IX. PERSONS LIVING SOLELY ON THEIR INCOMES.

1st Classification.	2nd Classification.	3rd Classification.
59. PERSONS LIVING SOLELY ON THEIR INCOMES.	186. <i>Proprietors, fund holders, and persons of independent income.</i> 187. <i>Persons of occupation not well determined,</i>	438. Proprietors living solely upon the income from landed estates. 439. Fund holders. 440. Persons of independent income, pensioners upon the state and other public or private trustees. 441. Persons of occupation not well determined (calling themselves esquire, bürger or privat, or claiming an occupation formerly carried on, or giving as their occupation some titular distinction, etc.)

X. DOMESTICS AND MISCELLANEOUS.

1st Classification.	2nd Classification.	3rd Classification.
60. DOMESTICS.	188. <i>Porters, shop and wood-yard clerks.</i> 189. <i>Cooks, male and female.</i> 190. <i>Coachmen and grooms.</i> 191. <i>Other domestics.</i>	442. Porters, shop and wood-yard clerks. 443. Cooks, male and female. 444. Coachmen and grooms. 445. Other domestics. 446. <i>Femmes de ménage.</i>

I.



II.

